

RESULT 2
 US-10-796-280-504
 ; Sequence 504, Application US/10796280
 ; GENERAL INFORMATION:
 ; APPLICANT: CARGILL, Michele et al.
 ; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
 ; TITLE OF INVENTION: STROMOSIS, METHODS OF DETECTION AND USES THEREOF
 ; FILE REFERENCE: CL001510
 ; COPYRIGHT APPLICATION NUMBER: US/10/796,280
 ; COPYRIGHT FILING DATE: 2004-03-10
 ; NUMBER OF SEQ ID NOS: 68533
 ; SOFTWARE: FastSeq for Windows Version 4.0
 ; SEQ ID NO 504
 ; LENGTH: 3374
 ; TYPE: DNA
 ; ORGANISM: Homo sapiens
 US-10-796-280-504



Query Match 99.9%; Score 3370; DE 5'; Length 3374;
 Best Local Similarity 99.7%; Prod. No. 0;
 Matches 3364; Conservative 10; Mismatches 0; Indels 0; Gaps 0;

Qy	1	CTCACCCCGCTCTCCGCGCGCGCGGTCGGGTGCTCGCTACCGGCTCTCTCGGTTC	60
Db	1	CTCACCCCGCTCTCCGCGCGCGCGGTCGGGTGCTCGCTACCGGCTCTCTCGGTTC	60
Qy	61	TGTGCTCTCTTCTGCTCTGGCTCCCAACCCCTCTCCCTCCCTCTCCCTTGCTCT	120
Db	61	TGTGCTCTCTTCTGCTCTGGCTCCCAACCCCTCTCCCTCCCTCTCCCTTGCTCT	120
Qy	121	CCCTCTCTTGACGCGCTGCATTATTTCTGCCCGCAGGCTGGCTTGCAGTGTGCTG	180
Db	121	CCCTCTCTTGACGCGCTGCATTATTTCTGCCCGCAGGCTGGCTTGCAGTGTGCTG	180
Qy	181	CAGCCCGGGGAGGTGGCTGGGTGGGTGGGGAGGAGACTGTGCAGTTGTAGGGGAGGGG	240
Db	181	CAGCCCGGGGAGGTGGGTGGGTGGGTGGGGAGGAGACTGTGCAGTTGTAGGGGAGGGG	240
Qy	241	TGCCCTCTTCTTCCCGCTCCCTTCCCGCGCACTCTCCCTCTCTTCCCTCTTC	300
Db	241	TGCCCTCTTCTTCCCGCTCCCTTCCCGCGCACTCTCTCCCTCTCTTCCCTCTTC	300
Qy	301	CCCTCCCGCGCCCACTTCTTCTCTCTTCCGAGGACTGGTAATGTGTGTGGGAGC	360
Db	301	CCCTCCCGCGCCCACTTCTTCTCTCTTCCGAGGACTGGTAATGTGTGTGGGAGC	360
Qy	361	GACGGGGCGCGCGCGCGCGCGCGGACCACTCAGCGGGGACATGGGACATCCGC	420
Db	361	GRACGGGGCGCGCGCGCGCGCGGACCACTCAGCGGGGACATGGGACATCCGC	420
Qy	421	GCTCTGGGCGCTCTGGCTGTGCTCGGCTGTGCTGGGCGCCCGGGAGCGGCGCAC	480
Db	421	GCTCTGGGCGCTCTGGCTGTGCTCGGCTGTGCTGGGCGCCCGGGAGCGGCGCAC	480
Qy	481	CGGAACCGGGGAGAAAGCCAAATGTGAACCTCCCAATCCAGTGCACAAATGGTCGCTG	540
Db	481	CGGAACCGGGGAGAAAGCCAAATGTGAACCTCCCAATCCAGTGCACAAATGGTCGCTG	540
Qy	541	TATTACGCTGTTGTGGAATGTGATGGGATGAAGACTGTGTGACGGCAGTGTGAAAA	600
Db	541	TATTACGCTGTTGTGGAATGTGATGGGATGAAGACTGTGTGACGGCAGTGTGAAAA	600
Qy	601	GAACTGTGTAAAGAGAGCTGTGCTGAATCTGACTTGTTGTGCAACAATGGCCAGTGTGT	660
Db	601	GAACTGTGTAAAGAGAGCTGTGCTGAATCTGACTTGTTGTGCAACAATGGCCAGTGTGT	660
Qy	661	TOCCAGCGGATGGAGGTGTGATGGAGATCTGACTGGAGAGATGGTTACAGTGAAGCC	720
Db	661	TOCCAGCGGATGGAGGTGTGATGGAGATCTGACTGGAGAGATGGTTACAGTGAAGCC	720
Qy	721	AGAACAGTGOCATATGAGAACATGCCGATATCATGAAATCAGCTGTGGGCCCATTTCTAC	780
Db	721	AGAACAGTGOCATATGAGAACATGCCGATATCATGAAATCAGCTGTGGGCCCATTTCTAC	780
Qy	781	TCACTGTATATCCAGTGTCTGGAGATGTGATGTGAAAAATGTTGTGACAGTGGAGAGA	840
Db	781	TCACTGTATATCCAGTGTCTGGAGATGTGATGTGAAAAATGTTGTGACAGTGGAGAGA	840
Qy	841	TGAAGAAAACGTGGCAATATAACATGTAGTCCGACAGGTTCACCTGTCCAGTGGCCG	900
Db	841	TGAAGAAAACGTGGCAATATAACATGTAGTCCGACAGGTTCACCTGTCCAGTGGCCG	900
Qy	901	CTGCATCTCCAGGAACCTTGTATGCAATGCCAGGATGACTGACGGATGGCAGTATGA	960

Db 901 |||||CTGATCTCCAGGAACCTTGTATGCAATGGCCAGGATGACTCGACGATGGCAGTATGA 960
 Qy 961 GCTGGACGTGCCCCCGCAACCTGTGGCCATGAGTTCCMTGCMGACCTCTCTCTG 1020
 Db 961 GCTGGACGTGCCCCCGCAACCTGTGGCCATGAGTTCCMTGCMGACCTCTCTCTG 1020
 Qy 1021 CATCCCCATCAGCTGGGTATGGACGATGATGACAGCTGCTCCGACCAATCTGATGAGTC 1080
 Db 1021 CATCCCCATCAGCTGGGTATGGACGATGATGACAGCTGCTCCGACCAATCTGATGAGTC 1080
 Qy 1081 CCTGGAGCAGTGTGCCGCTCAGCCAGCATGACACCAAGTGTCCAGCCAGGAAATCCA 1140
 Db 1081 CCTGGAGCAGTGTGCCGCTCAGCCAGCATGACACCAAGTGTCCAGCCAGGAAATCCA 1140
 Qy 1141 GTGCGGCTGTGGCGAGTGATCCATAGAAGATGGGCGATGTGATGGGGACCTGACTGCAA 1200
 Db 1141 GTGCGGCTGTGGCGAGTGATCCATAGAAGATGGGCGATGTGATGGGGACCTGACTGCAA 1200
 Qy 1201 GGATGGCAGTATGAGGTCAACTGTGCTCTCGAAGTTCGCCGACCTGACCAATTGGAATG 1260
 Db 1201 GGATGGCAGTATGAGGTCAACTGTGCTCTCGAAGTTCGCCGACCTGACCAATTGGAATG 1260
 Qy 1261 TGGAGATGGCAGCTGCAATCCATGGCAGCAGCGATGTAATGGTATCCGAGCATGTGTGCA 1320
 Db 1261 TGGAGATGGCAGCTGCAATCCATGGCAGCAGCGATGTAATGGTATCCGAGCATGTGTGCA 1320
 Qy 1321 TGGTTCGATGAAGTCAACTGCAAAAATGTCAATCAGTCTTGGCCCTGGAAAATTCAA 1380
 Db 1321 TGGTTCGATGAAGTCAACTGCAAAAATGTCAATCAGTCTTGGCCCTGGAAAATTCAA 1380
 Qy 1381 GTGCAGAGTGGAGATGATATAGATATACGCAAAAGTATGTAACAGGACAGGACTCGAC 1440
 Db 1381 GTGCAGAGTGGAGATGATATAGATATACGCAAAAGTATGTAACAGGACAGGACTCGAC 1440
 Qy 1441 GGACTGGAGTATGAGCCCTCGAAAGAGTGTCTATATAACGAATGCTTGGTAAATAATGG 1500
 Db 1441 GGACTGGAGTATGAGCCCTCGAAAGAGTGTCTATATAACGAATGCTTGGTAAATAATGG 1500
 Qy 1501 TGGATGTCTCATATCTGCAAAAGACTAGTTATAGGCTACAGTGTGACTGTGCACTGG 1560
 Db 1501 TGGATGTCTCATATCTGCAAAAGACTAGTTATAGGCTACAGTGTGACTGTGCACTGG 1560
 Qy 1561 GTTTGAAGCTGATAGATAGGAAAACCTGTGGAGATATTGATGAATGCCAAAATCCAGGAAT 1620
 Db 1561 GTTTGAAGCTGATAGATAGGAAAACCTGTGGAGATATTGATGAATGCCAAAATCCAGGAAT 1620
 Qy 1621 CTGCAGTCAAAATTGTATCAACTAAAGCGGGTTACAAGTGTGAATGTAGTCTGGGTA 1680
 Db 1621 CTGCAGTCAAAATTGTATCAACTAAAGCGGGTTACAAGTGTGAATGTAGTCTGGGTA 1680
 Qy 1681 TCAAAATGATCTTGCTACTGGCGTGTGCAAGGCAGTAGGCAAGAGCCAAATGCTGATCTT 1740
 Db 1681 TCAAAATGATCTTGCTACTGGCGTGTGCAAGGCAGTAGGCAAGAGCCAAATGCTGATCTT 1740
 Qy 1741 CACTAATCGAAGAGACATCGGAAGATTGGCTTAGAGAGGAAGAAATATATCCAAGTAGT 1800
 Db 1741 CACTAATCGAAGAGACATCGGAAGATTGGCTTAGAGAGGAAGAAATATATCCAAGTAGT 1800
 Qy 1801 TGAACAGCTAAGAAACACTGTGGCTCTGATGCTGACATTGCTGCCAGAAACTATCTTG 1860
 Db 1801 TGAACAGCTAAGAAACACTGTGGCTCTGATGCTGACATTGCTGCCAGAAACTATCTTG 1860
 Qy 1861 GGCCGATCTAAGCCAAAGGCTATCTTCAGTCCCAATTGATGACAGAGTGTGTAGACA 1920
 Db 1861 GGCGATCTAAGCCAAAGGCTATCTTCAGTCCCAATTGATGACAGAGTGTGTAGACA 1920
 Qy 1921 TGTATAAATGATGACAAATGCTATAAATCTGACGCCATTGCTGTGATTGGGTGTACAA 1980
 Db 1921 TGTATAAATGATGACAAATGCTATAAATCTGACGCCATTGCTGTGATTGGGTGTACAA 1980
 Qy 1981 GACCACTACTGGAGTATGCGGCTCTAAGACTATTTCAGTAGTACCTCTAGATGGAAC 2040
 Db 1981 GACCACTACTGGAGTATGCGGCTCTAAGACTATTTCAGTAGTACCTCTAGATGGAAC 2040
 Qy 2041 CAGAGGAAGTCTCTGTTAACTGACTGCGAGAGCGTCCCTCATAGCTGTGAGCCC 2100
 Db 2041 CAGAGGAAGTCTCTGTTAACTGACTGCGAGAGCGTCCCTCATAGCTGTGAGCCC 2100
 Qy 2101 ACTGTCTGGCTTTGTTACTGTGTGACACTGGGGTGAACAGCTAAATAGAAAAGCAGG 2160
 Db 2101 ACTGTCTGGCTTTGTTACTGTGTGACACTGGGGTGAACAGCTAAATAGAAAAGCAGG 2160
 Qy 2161 AATGAATGATTCGATAGCTCCACTGCTGACAGCGGATATCCAGTGGCTTAAYGGAAT 2220
 Db 2161 AATGAATGATTCGATAGCTCCACTGCTGACAGCGGATATCCAGTGGCTTAAYGGAAT 2220
 Qy 2221 TACACTTGACCTATATAAAAGTGCGCTCTATTGGCTTGATTCTAAGTGTGCACATGTATC 2280

Db 2221 TGCACCTGGACCTTATAAAAGGTCCTCTATTGGCTTGATCTAAGTGGACATGTGATC 2280
 Qy 2281 CAGCTGGACCTGAAATGGCCAGATCTAGGATAGTACTAAGTCTCTGGAGTTCTTAGC 2340
 Db 2281 CAGCTGGACCTGAAATGGCCAGATCTAGGATAGTACTAAGTCTCTGGAGTTCTTAGC 2340
 Qy 2341 TCATCCTCTTGCACTAACATAATTTGAGGATGTGTTACTTGGATAGATGGGAAAAATGA 2400
 Db 2341 TCATCCTCTTGCACTAACATAATTTGAGGATGTGTTACTTGGATAGATGGGAAAAATGA 2400
 Qy 2401 AGCAGCTCATGGTGCCAAATAATTCATGGGTCAGAGCTAGCCACTCTAGTCAACACCT 2460
 Db 2401 AGCAGCTCATGGTGCCAAATAATTCATGGGTCAGAGCTAGCCACTCTAGTCAACACCT 2460
 Qy 2461 GAATGATGCCAAGACATATTGTTATCATGAAGTTTACAGCCATCAGGTAATAATG 2520
 Db 2461 GAATGATGCCAAGACATATTGTTATCATGAAGTTTACAGCCATCAGGTAATAATG 2520
 Qy 2521 GTGTGAAGAAGCATGGAGAAATGGAGGATGTGAATACCTATGCTGCCAGACCCACAGAT 2580
 Db 2521 GTGTGAAGAAGCATGGAGAAATGGAGGATGTGAATACCTATGCTGCCAGACCCACAGAT 2580
 Qy 2581 TAATGATCACTCTCCAAATATATCTGTTCTGTCCAGTGGGTACAATGTAGAGAAAA 2640
 Db 2581 TAATGATCACTCTCCAAATATATCTGTTCTGTCCAGTGGGTACAATGTAGAGAAAA 2640
 Qy 2641 TGGCCGAGACTGTCAAAGGATCAATGTGACACAGCAGTATCAGAGGTAGTGTCCCCC 2700
 Db 2641 TGGCCGAGACTGTCAAAGGATCAATGTGACACAGCAGTATCAGAGGTAGTGTCCCCC 2700
 Qy 2701 AAAAGGGACTTCTGCCGATGGGCCATTCTTCCTCTTGCTCTTAGTATGGCAGCAGT 2760
 Db 2701 AAAAGGGACTTCTGCCGATGGGCCATTCTTCCTCTTGCTCTTAGTATGGCAGCAGT 2760
 Qy 2761 AGGTGGCTACTTGATGTGGCGGAATTGGCAACACAGAATGAAAAGCATGAACCTTGA 2820
 Db 2761 AGGTGGCTACTTGATGTGGCGGAATTGGCAACACAGAATGAAAAGCATGAACCTTGA 2820
 Qy 2821 CAATCTGTGTACTGAAAACCACTGAAGAGGACCTCTCCATGACATTGGTAGACACAG 2880
 Db 2821 CAATCTGTGTACTGAAAACCACTGAAGAGGACCTCTCCATGACATTGGTAGACACAG 2880
 Qy 2881 TGCTTCTGTGGACACAGTACCCAGCAATATCAGTTGTAAGCACAGATGATGATCTAGC 2940
 Db 2881 TGCTTCTGTGGACACAGTACCCAGCAATATCAGTTGTAAGCACAGATGATGATCTAGC 2940
 Qy 2941 TTGACTCTGTGACAAATGTTGACCTTTGAGGCTTAAACAAATAATACCCCGTCGGAAT 3000
 Db 2941 TTGACTCTGTGACAAATGTTGACCTTTGAGGCTTAAACAAATAATACCCCGTCGGAAT 3000
 Qy 3001 GGTAAACCGAGCCAGCAGCTGAAGTCTCTTTTCTTCCCTCGGCTGGAGAACATCAAGA 3060
 Db 3001 GGTAAACCGAGCCAGCAGCTGAAGTCTCTTTTCTTCCCTCGGCTGGAGAACATCAAGA 3060
 Qy 3061 TACCTTTGGCTGGATCAGCTTGTGTACTTGACCGTTTTTATATTACTTTTGTAATATT 3120
 Db 3061 TACCTTTGGCTGGATCAGCTTGTGTACTTGACCGTTTTTATATTACTTTTGTAATATT 3120
 Qy 3121 CTGTGCCAATCTACTTCAGCTTTGAGTGTGGTACCGAGTATCTGAACCTTGAATT 3180
 Db 3121 CTGTGCCAATCTACTTCAGCTTTGAGTGTGGTACCGAGTATCTGAACCTTGAATT 3180
 Qy 3181 TCTAGACAGTATTGCCACTCTGGCCAAATATGCACTTTCCCTAGAAGCCATATCCAG 3240
 Db 3181 TCTAGACAGTATTGCCACTCTGGCCAAATATGCACTTTCCCTAGAAGCCATATCCAG 3240
 Qy 3241 CAGTGAACCTTGCTCATAGTGATATACCACTGTACATACATTGTATAGGCCATCTGTAA 3300
 Db 3241 CAGTGAACCTTGCTCATAGTGATATACCACTGTACATACATTGTATAGGCCATCTGTAA 3300
 Qy 3301 ATATCCCGGACAAACGGGTTACTAAGATGAAATGGCAAAAAATTTATAAATAATT 3360
 Db 3301 ATATCCCGGACAAACGGGTTACTAAGATGAAATGGCAAAAAATTTATAAATAATT 3360
 Qy 3361 TGTAGTATGAATG 3374
 Db 3361 TGTAGTATGAATG 3374

ABXSULT 5
ABX62889

ID ABX62889 standard; cDNA; 3622 BP.

XX

AC ABX62889;

XX

DT 25-FEB-2003 (first entry)

XX

DE Human activated T cell cDNA #5.

XX

KW T cell; gene; ss; differential expression; T cell activation;
antiallergic; cytostatic; immunosuppressive; antimicrobial; gene therapy;
allergy; cancer; graft versus host disease; infection;
autoimmune disorder.

XX

OS Homo sapiens.

XX

PN US2002137077-A1.

XX

PD 26-SEP-2002.

XX

PF 25-OCT-2001; 2001US-00002600.

XX

PR 25-OCT-2000; 2000US-0243521P.

XX

PA (HOPK/) HOPKINS C M.
(PETE/) PETERSON D P.
(COCK/) COCKS B G.
(HAWK/) HAWKINS P R.

XX

PI Hopkins CM, Peterson DP, Cocks BG, Hawkins PR;

XX

DR WPI; 2003-102381/09.

XX

PT New combination comprising several cDNAs that are differentially
expressed in activated T cells, useful for diagnosing, treating, staging
or monitoring treatment for allergy, cancer, infectious and/or autoimmune
disorders.

XX

PS Claim 1; Page; 180pp; English.

XX

CC This invention relates to the sequences of several cDNAs that are
differentially expressed in activated T cells. The sequences of the
invention may have antiallergic, cytostatic, immunosuppressive and
antimicrobial activity and may be used in gene therapy. The invention
also comprises a method for screening samples for differentially
expressed genes and a method for detecting these cDNAs by hybridisation.
The methods and compositions of the present invention are useful for
diagnosing, treating, staging or monitoring treatment for allergy,
cancer, chronic graft versus host disease, infectious and/or autoimmune
disorders. The present sequence represents a cDNA of the invention that
is differentially expressed in activated T cells

XX

SQ Sequence 3622 BP; 965 A; 838 C; 902 G; 916 T; 0 U; 1 Other;

Query Match 92.6%; Score 3125.6; DB 8; Length 3622;
Best Local Similarity 96.2%; Pred. No. 0;
Matches 3292; Conservative 0; Mismatches 35; Indels 96; Gaps 5;

Qy 12 CTCGGCGCGCGCGGTCGGGTGCTCGCTACCGGCTCCTCTCGGTCTGTGCTCTT 71
| | | | |
Db 1 CTCGTGGGCGCGGGTGCGGGTGCTCGCTACCGGCT-CTCTCGGTCTGTGCTCTT 59
| | | | |
Qy 72 CTGCTCTGGGCTGCCAGCCGCTCTGCCTTCCGCTCTCCGCTGCTGCTGCCCTCTCTG 131
| | | | |
60 CTGCTCTGGGCTGCCAGCCGCTCTGCCTTCCGCTCTCCGCTGCTGCTGCCCTCTCTG 139
| | | | |
Qy 132 CAGCGCGCTGCATTATTTCTGCGCGCAGGCTCGGCTTGCACTGCTGCTGCAGCGCGGGA 191
| | | | |
Db 120 CAGCGCGCTGCATTATTTCTGCGCGCAGGCTCGGCTTGCACTGCTGCTGCAGCGCGGGA 176
| | | | |

Qy 192 GGTGGCTGGGTGGGTGGGAGGAGACTGTGCAAGTTGTAGGGAGGGGGTGCCTCTTCT 251
 Db 180 GGTGGCTGGGTGGGTGGGAGGAGACTGTGCAAG-TGTAGGGAGGGGGTGCCTCTTCT 238

Qy 252 TCCCGGCTCCCTTCCCGGCCAACTCCTTCCCTCCTTCTCCGCCCTTTCGCCCTCCCGGC 311
 Db 239 TCCCGGCTCCCTTCCCGAGCCAAGTGGTTCCTCCTTCTCCGCCCTTTCGCCCTCCAGCC 298

Qy 312 CCCACCTTCTTCTCCTTTTCGGAAGGACTGGTAACTTGTGTGCGAGCGAACGGCGCG 371
 Db 299 CCCACCTTCTTCTCCTTTTCGGAAGGCTGGTAACTTGTGTGCGAGCGAA----- 350

Qy 372 CGCGCGCGCGCGCGCACCATCCAGCGCGGCACCATGGGCACGTCGCGCTCTGGGGCC 431
 Db 351 -CGCGCGCGCGCGCGCACCATCCAGCGCGGCACCATGGGCACGTCGCGCTCTGGGGCC 409

Qy 432 TCTGGCTGCTGCTCCGCTGTGTCTGGCGCCCCCGGAGAGCGCGCCACCGGAACCGGGA 491
 Db 410 TCTGGCTGCTGCTCCGCTGTGTCTGGCGCCCCCGGAGAGCGCGCCACCGGAACCGGGA 469

Qy 492 GAAAAGCCAAATGTGAACCTTCCCAATTCAGTGCACAAATGGTGCCTGTATTACGCTGT 551
 Db 470 GAAAAGCCAAATGTGAACCTTCCCAATTCAGTGCACAAATGGTGCCTGTATTACGCTGT 529

Qy 552 TGTGAAATGTGATGGGGATGAAGACTGTGTTGACGGCAGTGATGAAAAGAACTGTGTAA 611
 Db 530 TGTGAAATGTGATGGGGATGAAGACTGTGTTGACGGCAGTGATGAAAAGAACTGTGTAA 589

Qy 612 AGAAGACGTGTGCTGAATCTGACTTCGTGTGCAACAATGGCCAGTGTTTCCAGCCGAT 671
 Db 590 AGAAGACGTGTGCTGAATCTGACTTCGTGTGCAACAATGGCCAGTGTTTCCAGCCGAT 649

Qy 672 CGAAGTGTGATGGAGATCCTGACTGCGAAGATGGTTCAGATGAAAGCCGAGAACAGTCC 731
 Db 650 CGAAGTGTGATGGAGATCCTGACTGCGAAGATGGTTCAGATGAAAGCCGAGAACAGTCC 709

Qy 732 ATATGAGAACATGCCGCATACATGAAATCAGCTGTGGCGCCATTCTACTCAGTGATCC 791
 Db 710 ATATGAGAACATGCCGCATACATGAAATCAGCTGTGGCGCCATTCTACTCAGTGATCC 769

Qy 792 CAGTGTCTGGAGATGTGATGGTGAATAATGATTGTGACAGTGGAGAAGATGAAGAAAAT 851
 Db 770 CAGTGTCTGGAGATGTGATGGTGAATAATGATTGTGACAGTGGAGAAGATGAAGAAAAT 829

Qy 852 GTGGCAATATAACATGTAGTCCCGACGAGTTCACTGTCTCCAGTGGCGCTGCATCTCCA 911
 Db 830 GTGGCAATATAACATGTAGTCCCGACGAGTTCACTGTCTCCAGTGGCGCTGCATCTCCA 889

Qy 912 GGAACCTTGTATGCAATGGCCAGGATGACTGCAGCGATGGCAGTGATGAGCTGGAATGTG 971
 Db 890 GGAACCTTGTATGCAATGGCCAGGATGACTGCAGCGATGGCAGTGATGAGCTGGAATGTG 949

Qy 972 CCCCGCCAACCTGTGGCGCCCATGAGTTCAGTGACAGCACCTCCTCCTGCATCCCCATCA 1031
 Db 950 CCCCGCCAACCTGTGGCGCCCATGAGTTCAGTGACAGCACCTCCTCCTGCATCCCCATCA 1009

Qy 1032 GCTGGGTATGCGACGATGATGCAGACTGCTCCGACCAATCTGATGAGTCCCTGGAGCAGT 1091
 Db 1010 GCTGGGTATGCGACGATGATGCAGACTGCTCCGACCAATCTGATGAGTCCCTGGAGCAGT 1069

Qy 1092 GTGGCCGTGAGCCAGTCATACACCAACAAGTCCAGCCAGGAAATCCAGTGGCGCTCTG 1151
 Db 1070 GTGGCCGTGAGCCAGTCATACACCAACAAGTCCAGCCAGGAAATCCAGTGGCGCTCTG 1129

Qy 1152 CGCAGTGCATCCATAAGAAGTGGCGATGTGATGGGACCTGACTGCAAGGATGGCAGTG 1211
 Db 1130 CGCAGTGCATCCATAAGAAGTGGCGATGTGATGGGACCTGACTGCAAGGATGGCAGTG 1189

Qy 1212 ATGAGGTCAACTGTCCCTCTCGAACTTGGCGACTGACCAATTTGAATGTGAGGATGGCA 1271
 Db 1190 ATGAGGTCAACTGTCCCTCTCGAACTTGGCGACTGACCAATTTGAATGTGAGGATGGCA 1249

Qy	1272	GCTGCATCCATGCCAGCAGGCAGTGAATGGTATCCGAGACTGTGTCGATGGTTCGAGT	1331
Db	1250		
Qy	1332	AGTCAACTGCAAAAATGTCAATCAGTGCTTCGGCCCTGGAAAAATCAAGTCGAGAAAGT	1391
Db	1310		
Qy	1392	AGTCAACTGCAAAAATGTCAATCAGTGCTTCGGCCCTGGAAAAATCAAGTCGAGAAAGT	1369
Qy	1392	GAGATGCATAGATATCAGCAAAGTATGTAACCCAGGAGCAGGACTGCAGGAGCTGGAGTG	1451
Db	1370		
Qy	1452	GAGATGCATAGATATCAGCAAAGTATGTAACCCAGGAGCAGGACTGCAGGAGCTGGAGTG	1429
Qy	1452	ATGAGCCCCCTGAAAGAGTGTGCATATAAACCAATGCTTCGTAATAATGGTGATGTTCTC	1511
Db	1430		
Qy	1512	ATGAGCCCCCTGAAAGAGTGTGCATATAAACCAATGCTTCGTAATAATGGTGATGTTCTC	1489
Qy	1512	ATATCTGCAAAAGACCTAGTTATAGGCTACGAGTGTGACTGTGCAGCTGGGTTTGAAGTGA	1571
Db	1490		
Qy	1572	ATATCTGCAAAAGACCTAGTTATAGGCTACGAGTGTGACTGTGCAGCTGGGTTTGAAGTGA	1549
Qy	1572	TAGATAGGAAAACTGTGGAGATATTGATGAATGCCAAAAATCCAGGAATCTGCAGTCAAA	1631
Db	1550		
Qy	1632	TAGATAGGAAAACTGTGGAGATATTGATGAATGCCAAAAATCCAGGAATCTGCAGTCAAA	1609
Qy	1632	TTTGTATCAACTTAAAAGCGGTACAAAGTGTGAATGTAGTCGTGGCTATCAAAATGGATC	1691
Db	1610		
Qy	1692	TTTGTATCAACTTAAAAGCGGTACAAAGTGTGAATGTAGTCGTGGCTATCAAAATGGATC	1669
Qy	1692	TTGCTACTGGCGTGTGCAAGGCAGTAGGCAAGAGCCAAAGTCTGATCTTCACTAATCGAA	1751
Db	1670		
Qy	1752	TTGCTACTGGCGTGTGCAAGGCAGTAGGCAAGAGCCAAAGTCTGATCTTCACTAATCGAA	1729
Qy	1752	GAGACATCAGGAAGATTGGCTTAGAGAGGAAGAATATATCCAACTAGTTGAACAGCTAA	1811
Db	1730		
Qy	1812	GAGACATCAGGAAGATTGGCTTAGAGAGGAAGAATATATCCAACTAGTTGAACAGCTAA	1789
Qy	1812	GAACACTGTGGCTCTCGATGCTGACATTGCTGCCAGAACTATCTGGGCCGATCTAA	1871
Db	1790		
Qy	1790	GAACACTGTGGCTCTCGATGCTGACATTGCTGCCAGAACTATCTGGGCCGATCTAA	1849
Qy	1872	GCCAAAAGGCTATCTTCAGTGCCCTCAATTGATGACAAGGTTGGTAGACATGTTAAAATGA	1931
Db	1850		
Qy	1932	GCCAAAAGGCTATCTTCAGTGCCCTCAATTGATGACAAGGTTGGTAGACATGTTAAAATGA	1908
Qy	1932	TCGACAAATGTCTATAAATCCTGCAGCCATTGCTGTTGATTGGGTGTACAAGACCATCTACT	1991
Db	1909		
Qy	1992	TCGACAAATGTCTATAAATCCTGCAGCCATTGCTGTTGATTGGGTGTACAAGACCATCTACT	1968
Qy	1992	GGACTGATGCGGCTTCTAAGACTATTTAGTAGCTACCCCTAGATGGAACCAAGAGGAGT	2051
Db	1969		
Qy	2052	GGACTGATGCGGCTTCTAAGACTATTTAGTAGCTACCCCTAGATGGAACCAAGAGGAGT	2028
Qy	2052	TCCTGTTTAACTCTGACTTGGCAGAGGCTGCCTCCATAGCTGTGGACCCACTGTCTGGCT	2111
Db	2029		
Qy	2112	TCCTGTTTAACTCTGACTTGGCAGAGGCTGCCTCCATAGCTGTGGACCCACTGTCTGGCT	2088
Qy	2112	TTGTTTACTGGTCAGACTGGGGTGAACCAAGTAAAAAGAGGAGGAGTGAATGGAT	2171
Db	2089		
Qy	2172	TTGTTTACTGGTCAGACTGGGGTGAACCAAGTAAAAAGAGGAGGAGTGAATGGAT	2148
Qy	2172	TCGATAGACGTCACCTGGTGACAGCGGATATCCAGTGGCTAACCGAATTACACTTGACC	2231
Db	2149		
Qy	2232	TCGATAGACGTCACCTGGTGACAGCGGATATCCAGTGGCTAACCGAATTACACTTGACC	2208
Qy	2232	TTATAAAAGTGCCTCTATTGGCTTGATTCTAAGTTGCACATGTTATCCAGCGTGGACT	2291
Db	2209		
Qy	2292	TTATAAAAGTGCCTCTATTGGCTTGATTCTAAGTTGCACATGTTATCCAGCGTGGACT	2268
Qy	2292	TGAATGGCCAAAGATCGTAGGATAGTACTAAAGTCTCTCGAGTTCTTAGCTCATCTCTTG	2351

Db 2269 TGAATGCCCAAGATCGTAGGATAGTACTAAAGTCTCTGGAGTTCCTAGCTCATCCTCTTG 2328
 Qy 2352 CACTAACAAATATTTGAGGATCGTGTCTACTGGATAGATGGGGAAAAATGAAGCAGTCTATG 2411
 Db 2329 CACTAACAAATATTTGAGGATCGTGTCTACTGGATAGATGGGGAAAAATGAAGCAGTCTATG 2388
 Qy 2412 GTGCCAATAAATTCAGTGGATCAGAGCTAGCCACTCTAGTCAACAACCTGAATGATGCC 2471
 Db 2389 GTGCCAATAAATTCAGTGGATCAGAGCTAGCCACTCTAGTCAACAACCTGAATGATGCC 2448
 Qy 2472 AAGACATCATTGTCTATCATGAACCTTGTACAGCCATCAGGTAAAAATGGTGTGAAGAAG 2531
 Db 2449 AAGACATCATTGTCTATCATGAACCTTGTACAGCCATCAGGTAAAAATGGTGTGAAGAAG 2508
 Qy 2532 ACATGGAGAATGGAGGATGTGAATACCTATGCCCTGCCAGCACCAGAGATTAAATGATCACT 2591
 Db 2509 ACATGGAGAATGGAGGATGTGAATACCTATGCCCTGCCAGCACCAGAGATTAAATGATCACT 2568
 Qy 2592 CTCGAAAAATATACCTGTTCCCTGTCCAGTGGGTACAATGTAGAGGAAAAATGCCGAGACT 2651
 Db 2569 CTCGAAAAATATACCTGTTCCCTGTCCAGTGGGTACAATGTAGAGGAAAAATGCCGAGACT 2628
 Qy 2652 GTCAAA----- 2657
 Db 2629 GTCAAAAGTACTGCAACTACTGTGACTTACAGTGAGACAAAAGATACGAACACAACAGAAA 2688
 Qy 2658 -----GGATCAATGTGACCACAGCAGTATCAGAGG 2687
 Db 2689 TTTTCAGCAACTAGTGGACTAGTTTCTGGAGGGATCAATGTGACCACAGCAGTATCAGAGG 2748
 Qy 2688 TCAGTGTTCGCCCAAAAGGGACTTCTGCCGATGGGCCATTCTTCCTCTCTTCCTCTTAG 2747
 Db 2749 TCAGTGTTCGCCCAAAAGGGACTTCTGCCGATGGGCCATTCTTCCTCTCTTCCTCTTAG 2808
 Qy 2748 TGATGGCAGCAGTAGGTGGCTACTTGATGTGGCGGAATTGGCAACACAGACATGAAAA 2807
 Db 2809 TGATGGCAGCAGTAGGTGGCTACTTGATGTGGCGGAATTGGCAACACAGACATGAAAA 2868
 Qy 2808 GCATGAACCTTTGACAATCCTGTGTACTTGAAGAACCACTGAAGAGGACCTCTCCATAGACA 2867
 Db 2869 GCATGAACCTTTGACAATCCTGTGTACTTGAAGAACCACTGAAGAGGACCTCTCCATAGACA 2928
 Qy 2868 TTGTGTAGACACAGTGCTTCTGTGGACACAGTACCCAGCAATATCAGTTGTAAGCAGAC 2927
 Db 2929 TTGTGTAGACACAGTGCTTCTGTGGACACAGTACCCAGCAATATCAGTTGTAAGCAGAC 2988
 Qy 2928 ATGATGATCTAGCTTGACTTCTGTGACAAATGTTGACCTTTGAGGTCTAAACAAATAATA 2987
 Db 2989 ATGATGATCTAGCTTGACTTCTGTGACAAATGTTGACCTTTGAGGTCTAAACAAATAATA 3048
 Qy 2988 CCCCCGTGGGAATGGTAACCGAGCCAGCAGCTGAAGTCTCTTTTCTTCCTCTCGGCTGG 3047
 Db 3049 CCCCCGTGGGAATGGTAACCGAGCCAGCAGCTGAAGTCTCTTTTCTTCCTCTCGGCTGG 3108
 Qy 3048 AAGACATCAAGATACCTTTGCGTGGATCAAGCTTGTGACTTGACCGTTTITATATTAC 3107
 Db 3109 AAGACATCAAGATACCTTTGCGTGGATCAAGCTTGTGACTTGACCGTTTITATATTAC 3168
 Qy 3108 TTTTGTAAATATTCTTGTCCACATTCTACTTCAGCTTTGGATGTGGTTACCGAGTATCTG 3167
 Db 3169 TTTTGTAAATATTCTTGTCCACATTCTACTTCAGCTTTGGATGTGGTTACCGAGTATCTG 3228
 Qy 3168 TAACCCCTGAAATTTCTAGACAGTATTGCCACCTCTGGCCAAATATGCACCTTTCCTAGAA 3227
 Db 3229 TAACCCCTGAAATTTCTAGACAGTATTGCCACCTCTGGCCAAATATGCACCTTTCCTAGAA 3288
 Qy 3228 AGGCATATTTCCAGCAGTGAACCTTGTGCTATAGTGTATACCACTGTACATACATTGTAT 3287
 Db 3289 AGGCATATTTCCAGCAGTGAACCTTGTGCTATAGTGTATACCACTGTACATACATTGTAT 3348
 Qy 3288 AGGCCATCTGTAAATATCCCGGACAAAACGGGTTACTAAGATGAAATGCCMAAAAAAT 3347

Db	3349	AGGCCATCTGTAAATATCCCAGAGAACAAATCACTATTCTTAAGCACITTTGAAAATATTTT	3408
Qy	3348	TAT	3350
Db	3409	TAT	3411